Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-31 (Cancelled).

32. (Currently amended) An agent for inhibiting development or progress of proliferative diseases, cancer diseases or of other diseases which are accompanied by elevated PLK1 expression levels, wherein said agent reduces or inhibits the activity of mammalian polo like kinase 1 (PLK 1) in mammalian cells and wherein said agent is selected from the group consisting of an RNA, ~~an inhibitory peptide~~ and an ~~antibody~~ antisense oligonucleotide.

33. (Previously presented) The agent according to claim 32, wherein said agent contains at least one RNA selected from the group consisting of short interfering RNA (siRNA) and antisense RNA, wherein said RNA is directed against the PLK 1 gene as active agent.

34. (Previously presented) The agent according to claim 33, wherein said RNA comprises 15 to 30 nucleotides.

35. (Previously presented) The agent according to claim 33, wherein the sequence of the siRNA or antisense RNA corresponds to nucleotide sequences of the PLK 1 mRNA.

36. (Previously presented) The agent according to claim 35, wherein the siRNA corresponds .to positions 178-200 (siRNA2), 362-384 (siRNA3),1416-1438 (siRNA4) or 1570-1592 (siRNA5) of the PLK 1 gene.

37. (Previously presented) The agent according to claim 32, comprising an effective amount of

at least one RNA expression system, wherein said RNA expression system contains

a) at least one RNA polymerase specific promoter sequence and is under the transcriptional control of said promoter sequence, and

b) at least one sequence homologous to the PLK 1 gene, wherein said sequence under suitable conditions and in the presence of an RNA polymerase is transcribed into interfering RNA.

38. (Previously presented) The agent according to claim 37, further comprising a nuclease inhibiting substance.

39. (Previously presented) The agent according to claim 37, wherein said interfering RNA is a siRNA.

40. (Previously presented) The agent according to claim 39, wherein said siRNA is a shRNA (hairpin) or a short antisense RNA.

41. (Previously presented) The agent according to claim 37, wherein said RNA expression system is contained in a plasmid or viral vector.

42. (Previously presented) The agent according to claim 37, wherein said sequence homologous to the PLK 1 gene comprises two complementary and inverted sequences (hairpin).

43. (Previously presented) The agent according to claim 42, wherein each of said two sequences is 15 to 30 nucleotides long.

44. (Previously presented) The agent according to claim 42, wherein said sequences are connected by a spacer sequence.

45. (Previously presented) The agent according to claim 44, wherein the spacer sequence contains 3 to 10 nucleotides.

46. (Previously presented) The agent according to claim 37, wherein said sequence homologous to the PLK 1 gene contains an RNA polymerase stop signal at the 3' end.

47. (Previously presented) The agent according to claim 37, wherein the nuclease inhibitor is aurin tricarboxylic acid (ATA).

48. (Previously presented) The agent according to claim 37, wherein the RNA specific promoter is the U6 promoter or H 1 promoter.

49. (Previously presented) The agent according to claim 37, wherein it is formulated for intravenous administrations.

50. (Previously presented) The agent according to claim 49, wherein it is formulated for bolus injection.

51. (Previously presented) The agent according to claim 49, wherein the active substances are contained in buffered saline solution.

52. (Previously presented) A composition comprising an agent according to claim 37, wherein the expression system is contained in an amount suitable for delivery of 0.05 to 0.5 mg/kg body weight of a patient.

53. (Previously presented) The agent according to claim 32, wherein said agent contains at least one phosphorothiate antisense oligonucleotide (ASO) or an ASO with another modification like mixed backbone oligonucleotides or morpholino oligonucleotides directed against the PLK 1 gene as active agent.

54. (Previously presented) The agent according to claim 53, wherein the ASO contains 15 to 30 nucleotides.

55. (Previously presented) The agent according to claim 53, wherein the ASO is homologous to the PLK1 mRNA.

56. (Previously presented) The agent according to claim 55, wherein the ASO is P12 (SEQ ID NO:30) and/or P13 (SEQ ID NO:31).

57. (Withdrawn) The agent according to claim 32, wherein a peptide which is inhibitory for the PLK 1 gene is present as active agent.

58. (Withdrawn) The agent according to claim 57, wherein the peptide comprises 3 to 50 amino acids.

59. (Withdrawn) The agent according to claim 57, characterized in that the peptide corresponds to a wild type (aa 410-439 in PLK 1) or a mutated polo box or its polo-box similar structures in PLK 1-3.

60. (Withdrawn) The agent according to claim 57, wherein the peptide corresponds to the polo box or the mutated polo box with any modifications, like L-forward, L-reverse, D-reverse (retro-inverso), sidechain and backbone modifications, cyclic forms and repeats as well as other modifications which enhance the half-life of peptides.

61. (Withdrawn) The agent according to claim 57, wherein the peptide is linked to a protein transduction domain or is used together with a protein transduction domain without need for a chemical covalent coupling or other expression-vector systems (plasmids, viral vectors etc.).

62. (Withdrawn) The agent according to claim 57, wherein it contains peptide P1 and/or peptide P2.

63. (Previously presented) A pharmaceutical composition, comprising an effective amount of an agent according to claim 32 and auxiliary and/or carrier substances and/or inhibitors of proteinases.

64. (Withdrawn) A method for treating patients who suffer from proliferative disease and/or cancer disease, comprising administering an amount of an agent according to claim 32 effective to inhibit the development or progress of said proliferative disease or said cancer disease.